09910887

FILE 'HOME' ENTERED AT 14:11:21 ON 15 MAR 2003

=> file reg

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.21 | 0.21 |

FILE 'REGISTRY' ENTERED AT 14:11:33 ON 15 MAR 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 13 MAR 2003 HIGHEST RN 499099-49-9
DICTIONARY FILE UPDATES: 13 MAR 2003 HIGHEST RN 499099-49-9

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

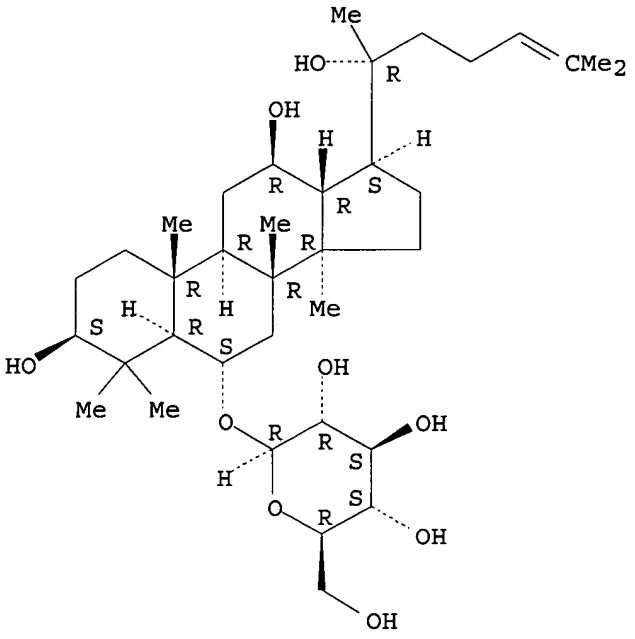
Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> s ginsenoside Rh1
130 GINSENOSIDE
155 RH1
L1 2 GINSENOSIDE RH1
(GINSENOSIDE(W)RH1)

=> d l1 1-2

L1 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2003 ACS
RN 80952-71-2 REGISTRY
CN .beta.-D-Glucopyranoside, (3.beta.,6.alpha.,12.beta.,20R)-3,12,20-trihydroxydammar-24-en-6-yl (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Dammarane, .beta.-D-glucopyranoside deriv.
OTHER NAMES:
CN **(20R)-Ginsenoside Rh1**
CN **20(R)-Ginsenoside Rh1**
FS STEREOSEARCH
MF C36 H62 O9
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, DDFU, DRUGU, IPA, TOXCENTER
(*File contains numerically searchable property data)

Absolute stereochemistry.

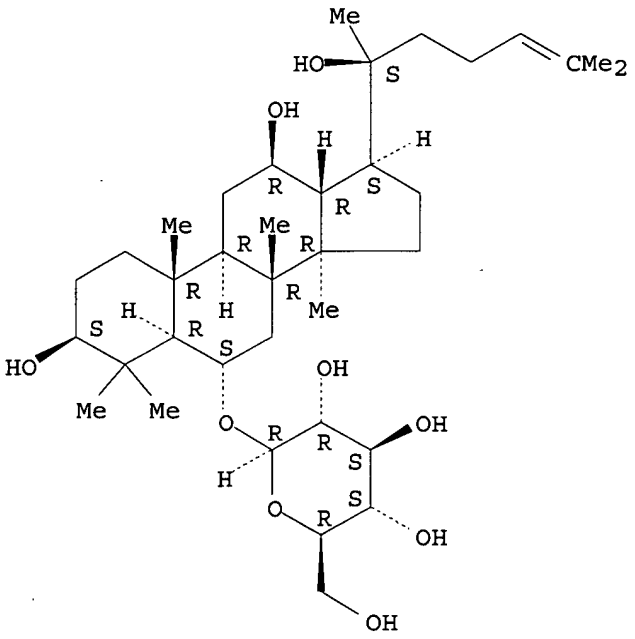


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

31 REFERENCES IN FILE CA (1962 TO DATE)
31 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L1 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2003 ACS
RN 63223-86-9 REGISTRY
CN .beta.-D-Glucopyranoside, (3.beta.,6.alpha.,12.beta.)-3,12,20-trihydroxydammar-24-en-6-yl (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Dammarane, .beta.-D-glucopyranoside deriv.
OTHER NAMES:
CN **20(S)-Ginsenoside Rh1**
CN **Ginsenoside Rh1**
CN Prosapogenin A2
CN Sanchinoside B2
CN Sanchinoside Rh1
FS STEREOSEARCH
MF C36 H62 O9
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, NAPRALERT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

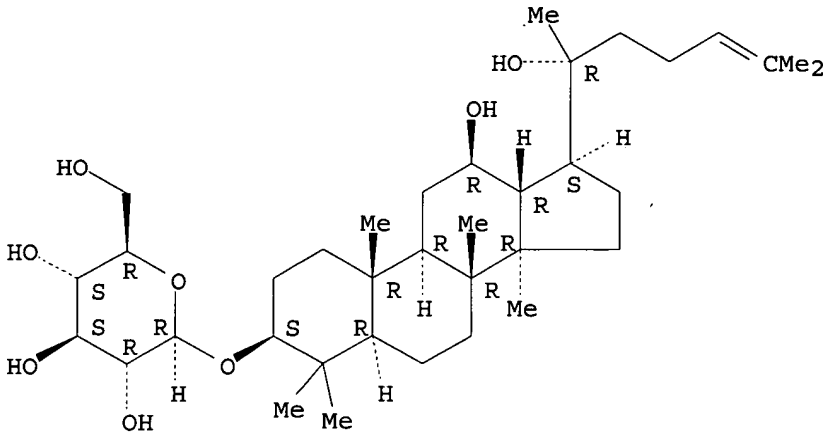
Absolute stereochemistry. Rotation (+).



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

149 REFERENCES IN FILE CA (1962 TO DATE)
149 REFERENCES IN FILE CAPLUS (1962 TO DATE)

```
=> s Ginsenoside Rh2
           130 GINSENOSIDE
            57 RH2
L2            2. GINSENOSIDE RH2
                 (GINSENOSIDE(W)RH2)

=> d l2 1-2

L2   ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2003 ACS
RN   112246-15-8  REGISTRY
CN   .beta.-D-Glucopyranoside, (3.beta.,12.beta.,20R)-12,20-dihydroxydammar-24-
     en-3-yl (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Dammarane, .beta.-D-glucopyranoside deriv.
OTHER NAMES:
CN   20(R)-Ginsenoside Rh2
FS   STEREOSEARCH
MF   C36 H62 O8
SR   CA
LC   STN Files:   BEILSTEIN*, CA, CAPLUS, IPA, TOXCENTER
         (*File contains numerically searchable property data)

Absolute stereochemistry.
```

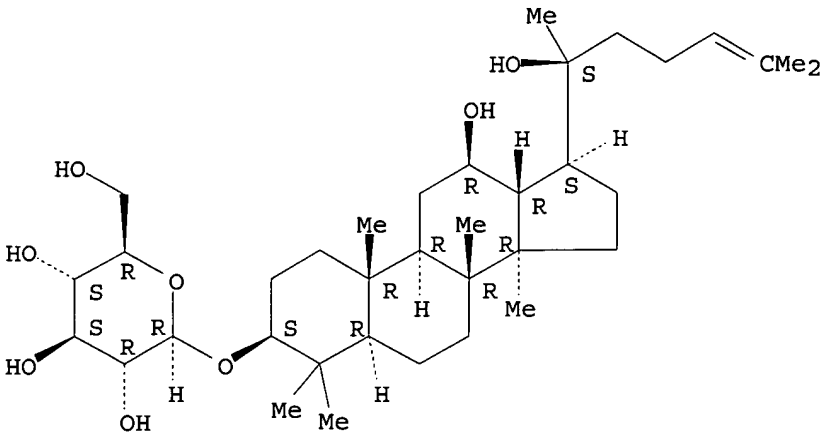



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

17 REFERENCES IN FILE CA (1962 TO DATE)
17 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L2 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2003 ACS
RN 78214-33-2 REGISTRY
CN .beta.-D-Glucopyranoside, (3.beta.,12.beta.)-12,20-dihydroxydammar-24-en-3-yl (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Dammarane, .beta.-D-glucopyranoside deriv.
OTHER NAMES:
CN **20(S)-Ginsenoside Rh2**
CN 3-O-.beta.-D-Glucopyranosyl-20(S)-protopanaxadiol
CN **Ginsenoside Rh2**
FS STEREOSEARCH
DR 67400-18-4
MF C36 H62 O8
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DDFU, DRUGU, IPA, MEDLINE, NAPRALERT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry. Rotation (+).



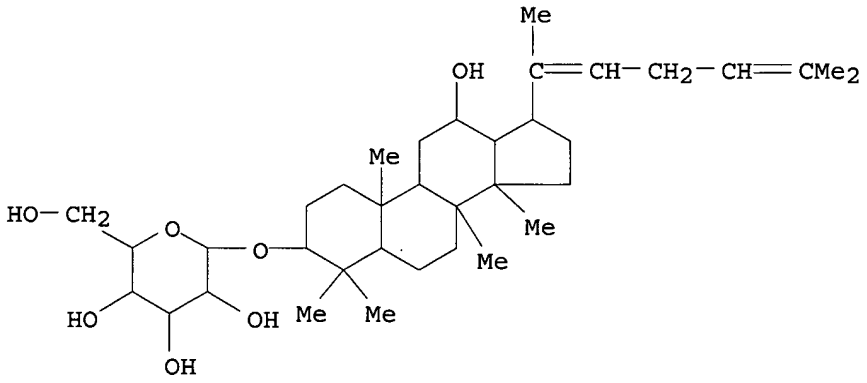
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

129 REFERENCES IN FILE CA (1962 TO DATE)
129 REFERENCES IN FILE CAPLUS (1962 TO DATE)

```
=> s G-Rh3
       2402937 G
            28 RH3
L3           0 G-RH3
                 (G(W)RH3)

=> s Ginesenoside Rh3
             0 GINESENOSIDE
            28 RH3
L4           0 GINESENOSIDE RH3
                 (GINESENOSIDE(W)RH3)

=> S ginsenoside Rh3
           130 GINSENOSIDE
            28 RH3
L5           2 GINSENOSIDE RH3
                 (GINSENOSIDE(W)RH3)

=> d l5 1-2

L5   ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2003 ACS
RN   166040-90-0  REGISTRY
CN   .beta.-D-Glucopyranoside, (3.beta.,12.beta.,20E)-12-hydroxydammara-
     20(22),24-dien-3-yl (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   (20E)-Ginsenoside Rh3
FS   STEREOSEARCH
MF   C36 H60 O7
SR   CA
LC   STN Files:   CA, CAPLUS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
```

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L5 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2003 ACS
RN 105558-26-7 REGISTRY
CN .beta.-D-Glucopyranoside, (3.beta.,12.beta.,20Z)-12-hydroxydammara-20(22),24-dien-3-yl (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Dammarane, .beta.-D-glucopyranoside deriv.
OTHER NAMES:
CN **Ginsenoside Rh3**
MF C36 H60 O7
SR CA
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAPLUS, MEDLINE, NAPRALERT, TOXCENTER




**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

11 REFERENCES IN FILE CA (1962 TO DATE)
11 REFERENCES IN FILE CAPLUS (1962 TO DATE)

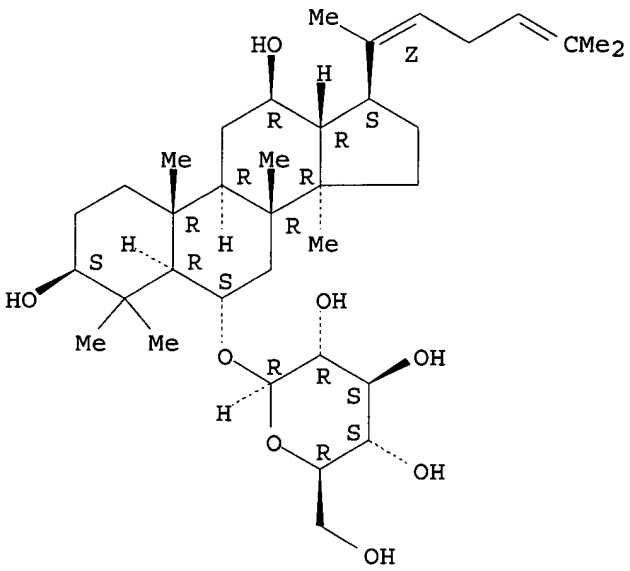
```
=> s Ginsenoside Rh4
           130 GINSENOSIDE
            31 RH4
L6           2 GINSENOSIDE RH4
                (GINSENOSIDE(W)RH4)

=> d l6 1-2
```

L6 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2003 ACS
RN 342632-88-6 REGISTRY
CN .beta.-D-Glucopyranoside, (3.beta.,6.alpha.,12.beta.,20Z)-3,12-dihydroxydammara-20(22),24-dien-6-yl (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **20(22)Z-Ginsenoside Rh4**
FS STEREOSEARCH
MF C36 H60 O8
SR CA

09910887

LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry as shown.



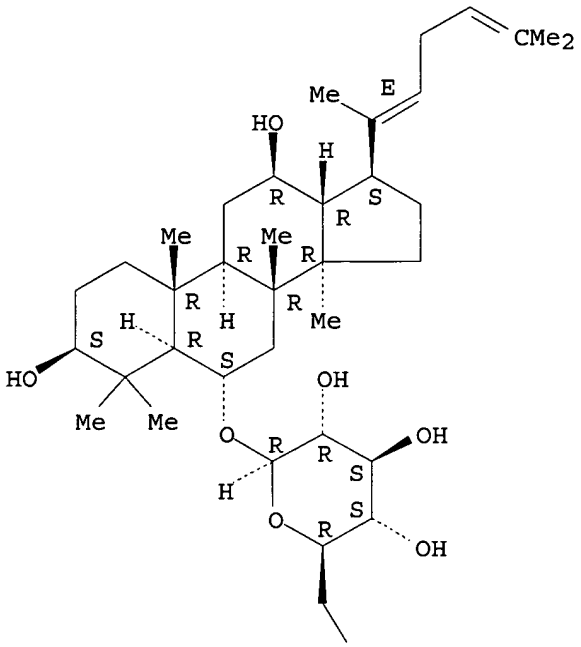

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L6 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2003 ACS
RN 174721-08-5 REGISTRY
CN .beta.-D-Glucopyranoside, (3.beta.,6.alpha.,12.beta.,20E)-3,12-dihydroxydammara-20(22),24-dien-6-yl (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **Ginsenoside Rh4**
FS STEREOSEARCH
MF C36 H60 O8
SR CA
LC STN Files: ANABSTR, CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.

PAGE 1-A




PAGE 2-A


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

7 REFERENCES IN FILE CA (1962 TO DATE)
7 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> d his

(FILE 'HOME' ENTERED AT 14:11:21 ON 15 MAR 2003)

FILE 'REGISTRY' ENTERED AT 14:11:33 ON 15 MAR 2003
L1 2 S GINSENOSIDE RH1
L2 2 S GINSENOSIDE RH2
L3 0 S G-RH3
L4 0 S GINESENOSIDE RH3
L5 2 S GINSENOSIDE RH3
L6 2 S GINSENOSIDE RH4

=> s PAM 110
340 PAM
9227 110

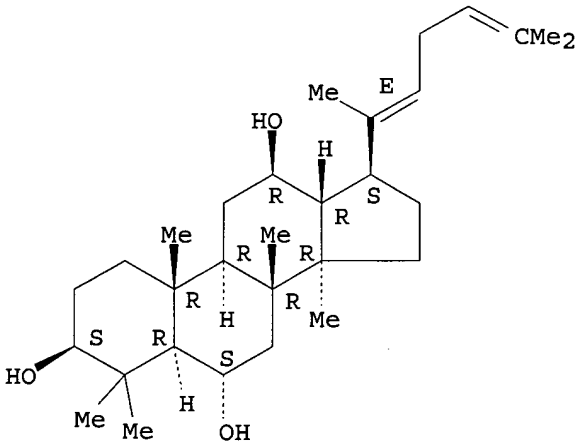
09910887

L7 1 PAM 110
(PAM(W)110)

=> d l7

L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 174688-80-3 REGISTRY
CN Dammara-20(22),24-diene-3,6,12-triol, (3.beta.,6.alpha.,12.beta.,20E)-
(9CI) (CA INDEX NAME)
OTHER NAMES:
CN **PAM 110**
CN Quasiprotopanaxatriol
FS STEREOSEARCH
MF C30 H50 O3
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.




**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

3 REFERENCES IN FILE CA (1962 TO DATE)
3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> s PAM 120
340 PAM
8014 120
L8 1 PAM 120
(PAM(W)120)

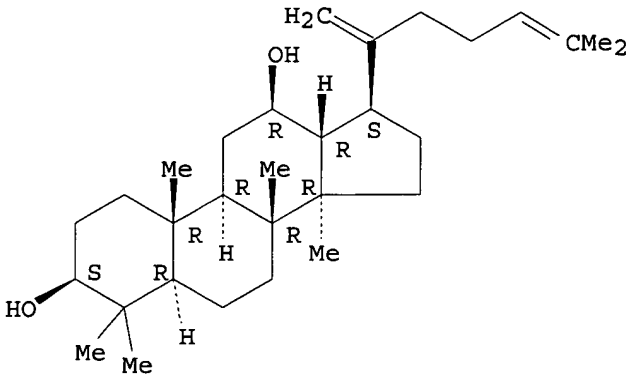
=> d l8

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 494753-66-1 REGISTRY
CN Dammara-20,24-diene-3,12-diol, (3.beta.,12.beta.)- (9CI) (CA INDEX NAME)

09910887

OTHER NAMES:
CN **PAM 120**
FS STEREOSEARCH
MF C30 H50 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.




**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

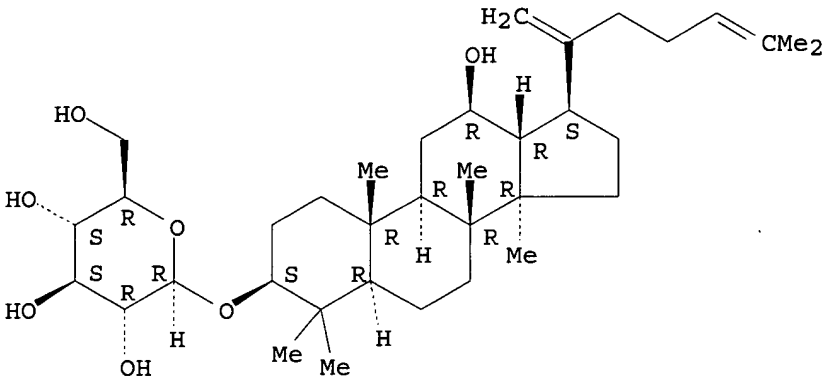
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

```
=> s PAM 100
          340 PAM
        41211 100
L9          0 PAM 100
                (PAM(W)100)

=> s PBM-110
           21 PBM
         9227 110
L10         0 PBM-110
                (PBM(W)110)

=> s PAN-20
       118648 PAN
       341223 20
L11         1 PAN-20
                (PAN(W)20)

=> d l11

L11  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2003 ACS
RN   364779-14-6  REGISTRY
CN   .beta.-D-Glucopyranoside, (3.beta.,12.beta.)-12-hydroxydammara-20,24-dien-
     3-yl (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   3.beta.,12.beta.-Dihydroxydammar-20(21),24-diene-3-O-.beta.-D-
     glucopyranoside
```

09910887

CN Ginsenoside Rk2
CN **PAN 20**
FS STEREOSEARCH
DR 494753-68-3
MF C36 H60 O7
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (+).



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

3 REFERENCES IN FILE CA (1962 TO DATE)
3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

```
=> s PAN-30
        118648 PAN
         94819 30
L12          2 PAN-30
                (PAN(W)30)

=> d l12 1-2

L12  ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2003 ACS
RN   494753-69-4  REGISTRY
CN   .beta.-D-Glucopyranoside, (3.beta.,12.beta.)-12-hydroxydammara-20,24-dien-
     3-yl 2-O-.beta.-D-glucopyranosyl- (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   3.beta.,12.beta.-Dihydroxydammar-20(21),24-diene-3-O-.beta.-D-
     glucopyranosyl(1.fwdarw.2)-.beta.-D-glucopyranoside
CN   Ginsenoside Rk1
CN   PAN 30
FS   STEREOSEARCH
MF   C42 H70 O12
SR   CA
LC   STN Files:   CA, CAPLUS, TOXCENTER

Absolute stereochemistry.  Rotation (+).
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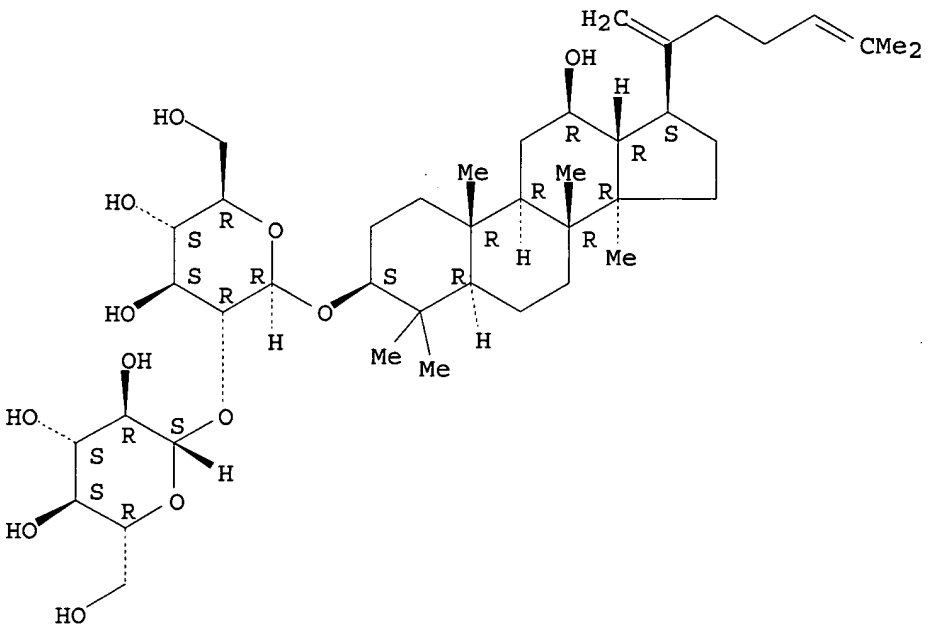

2 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L12 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2003 ACS
RN 114752-85-1 REGISTRY
CN **Diacarna PAN 30 (9CI)** (CA INDEX NAME)
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
4 REFERENCES IN FILE CA (1962 TO DATE)
4 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> file caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 127.52 | 127.73 |

FILE 'CAPLUS' ENTERED AT 14:18:02 ON 15 MAR 2003
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strictly prohibited.

FILE COVERS 1907 - 15 Mar 2003 VOL 138 ISS 12
FILE LAST UPDATED: 14 Mar 2003 (20030314/ED)

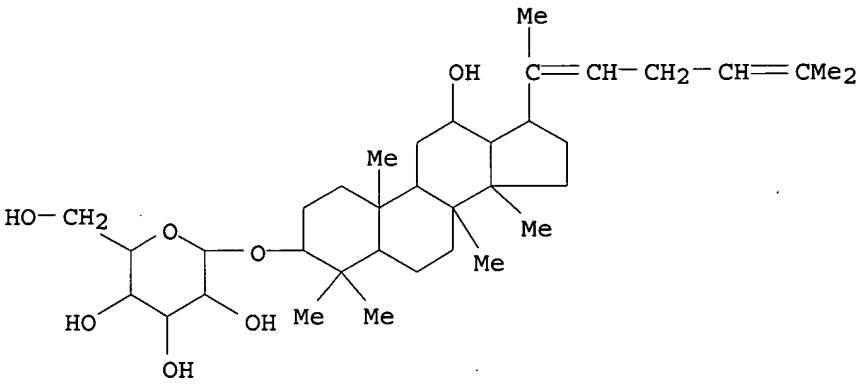
This file contains CAS Registry Numbers for easy and accurate
substance identification.

```
=> s l5
L13          11 L5

=> s l5 and cancer
             11 L5
         181999 CANCER
L14           2 L5 AND CANCER

=> d l14 ibib hitstr abs
```

L14 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:59488 CAPLUS
DOCUMENT NUMBER: 137:134208
TITLE: Anticarcinogenic effect of Panax ginseng C.A. Meyer and identification of active compounds
AUTHOR(S): Yun, Taik-Koo; Lee, Yun-Sil; Lee, You Hui; Kim, Shin Il; Yun, Hyo Yung
CORPORATE SOURCE: Laboratory of Experimental Pathology, Korea Cancer Center Hospital, Seoul, 139-706, S. Korea
SOURCE: Journal of Korean Medical Science (2001), 16(Suppl.), S6-S18
CODEN: JKMSEH; ISSN: 1011-8934
PUBLISHER: Korean Academy of Medical Science
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
IT **105558-26-7**, Ginsenoside Rh3
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anticarcinogenic effect of Panax ginseng C.A. Meyer and identification of active compds.)
RN 105558-26-7 CAPLUS
CN .beta.-D-Glucopyranoside, (3.beta.,12.beta.,20Z)-12-hydroxydammara-20(22),24-dien-3-yl (9CI) (CA INDEX NAME)



AB A review. The failure to improve the five-year survival rate of **cancer** patients, from one in three in the 1960s to one in two in the 1970s, stimulated awareness of the importance of primary prevention of **cancer**. Korean investigators carried out extensive long-term anticarcinogenicity expts. with 2000 newborn mice to investigate whether Panax ginseng C.A. Mayer inhibited carcinogenesis included by several chem. carcinogens in 1978. There was a 22% decrease ($p<0.05$) in the incidence of urethane induced lung adenoma by the combined use of red ginseng ext. In the group sacrificed at 56 wk after the treatment with aflatoxin B1, the incidence of hepatoma significantly decreased to 75% by the addn. of red ginseng ext. ($p<0.05$). The result showed that natural products can provide hope for human **cancer** prevention. By the newly established "9 wk medium term anticarcinogenicity test model of lung tumors in mice" (Yun's model), we confirmed significant anticarcinogenic effects of powders and exts. of the 6-yr-old dried fresh ginseng, 5- and 6-yr old white ginsengs, and 4-, 5-, and 6-yr old red ginseng. We also demonstrated that the anticarcinogenicity of ginseng was more prominent in aged or heat treated exts. of ginseng and red ginseng made by steaming. To investigate the active components for **cancer** prevention, several fractions of 6-yr old fresh ginseng and red ginseng, four semi-synthetic ginsenoside Rh1, Rh2, Rg3 and Rg5, major saponin components in red ginseng, were prepd. Among the ginsenosides, Rg3 and Rg5 showed statistically significant redn. of lung tumor incidence and Rh2 had a tendency of decreasing the incidence. Ginsenoside Rg3, Rg5 and Rh2 were found to be active anticarcinogenic compds. Rg3, Rg5 and Rh2 are active components in red ginseng, and they prevent **cancer** either singularly or synergistically.

REFERENCE COUNT: 89 THERE ARE 89 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
=> s l6
L15           8 L6

=> s l6 and cancer
              8 L6
         181999 CANCER
L16           2 L6 AND CANCER

=> d l16 1-2 ibib hitstr abs

L16  ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2003 ACS
```

09910887

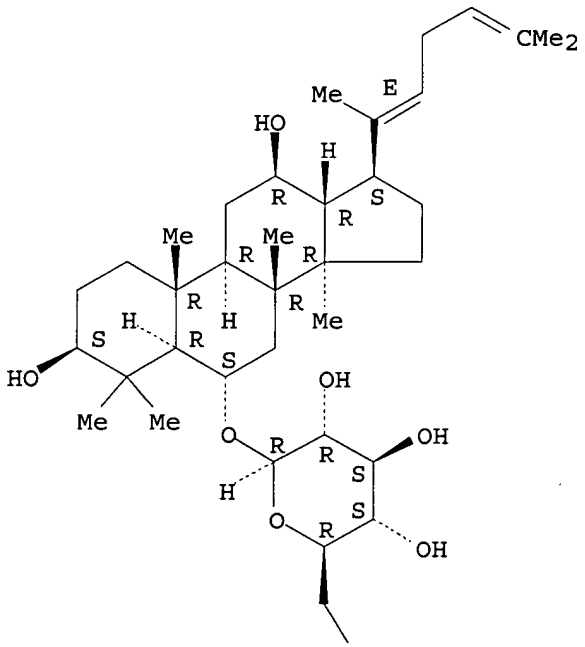
ACCESSION NUMBER: 1996:431012 CAPLUS
DOCUMENT NUMBER: 125:157877
TITLE: Effects of ginseng saponin on modulation of multidrug resistance
AUTHOR(S): Park, Jong-Dae; Kim, Dong-Sun; Kwon, Hyeok-Young; Son, Sang-Kwon; Lee, You-Hui; Baek, Nam-In; Kim, Shin-Il; Rhee, Dong-Kwon
CORPORATE SOURCE: Korea Ginseng & Tobacco Research Institute, Taejon, 305-345, S. Korea
SOURCE: Archives of Pharmacal Research (1996), 19(3), 213-218
CODEN: APHRDQ; ISSN: 0253-6269
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **174721-08-5**, Ginsenoside Rh4
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effects of ginseng saponins on modulation of multidrug resistance in human **cancer** cells cytotoxicity to vincristine)

RN 174721-08-5 CAPLUS
CN .beta.-D-Glucopyranoside, (3.beta.,6.alpha.,12.beta.,20E)-3,12-dihydroxydammara-20(22),24-dien-6-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.

PAGE 1-A

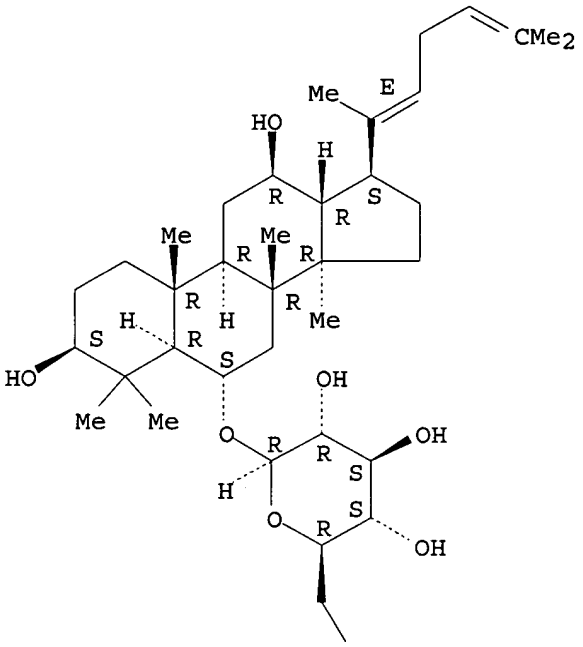


AB Multidrug resistance (MDR) has been a major problem in **cancer** chemotherapy. To overcome this problem, the authors prepd. minor ginsenosides stereoselectively from ginseng saponins and searched for a ginseng component which is effective for inhibition of MDR. MDR inhibition activity was detd. by measuring cytotoxicity to MDR cells using multidrug resistant human fibrocarcinoma KB V20C, which is resistant to 20 nM vincristine and expresses high level of mdr1 gene. Of several ginseng components, 20(S)-ginsenoside Rg3, a red ginseng saponin, was found to have the most potent inhibitory activity on MDR and it's concn. capable of inhibiting 50% growth was 82 .mu.M.

L16 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:171497 CAPLUS
DOCUMENT NUMBER: 124:226602
TITLE: Ginsenoside Rh4, a genuine dammarane glycoside from Korean red ginseng
AUTHOR(S): Baek, Nam-In; Kim, Dong Seon; Lee, You Hui; Park, Jong Dae; Lee, Chun Bae; Kim, Shin Il
CORPORATE SOURCE: Korea Ginseng & Tobacco Research Inst., Taejeon, 305-345, S. Korea
SOURCE: Planta Medica (1996), 62(1), 86-7
CODEN: PLMEAA; ISSN: 0032-0943
PUBLISHER: Thieme
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **174721-08-5P**, Ginsenoside Rh4
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(from Korean red ginseng)
RN 174721-08-5 CAPLUS
CN .beta.-D-Glucopyranoside, (3.beta.,6.alpha.,12.beta.,20E)-3,12-dihydroxydammara-20(22),24-dien-6-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.

PAGE 1-A




PAGE 2-A


AB A genuine glycoside, named ginsenoside Rh4, was isolated from Korean red ginseng (Panax ginseng C. A. Meyer) through repeated column chromatog., and its chem. structure was established to be 6-O-.beta.-D-glucopyranosyldammar-20(22),24-diene-3.beta.,6.alpha.,12.beta.-triol by spectral and chem. methods. The stereochem. of a double bond at C-20(22) of ginsenoside Rh4 was characterized as (E) from a NOESY expt. in the 1H-NMR of the aglycon. Cyclotoxic activities of ginsenoside Rh4 and its aglycon against **cancer** cell lines were evaluated by use of the SRB method.

```
=> s l7
L17           3 L7

=> d l7 1-3 ibib hitstr abs
YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:Y


'IBIB' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'HITSTR' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'ABS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
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09910887

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG - RN
SAM - Index Name, MF, and structure - no RN
FIDE - All substance data, except sequence data
IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD - Protein sequence data, includes RN
SQD3 - Same as SQD, but 3-letter amino acid codes are used
SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties
EPROP - Table of experimental properties
PROP - EPROP and CALC

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

ABS -- Abstract
APPS -- Application and Priority Information
BIB -- CA Accession Number, plus Bibliographic Data
CAN -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND -- Index Data
IPC -- International Patent Classification
PATS -- PI, SO
STD -- BIB, IPC, and NCL

IABS --ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.
The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):end

=> s l7
L18 3 L7

=> d l18 1-3 ibib hitstr abs

L18 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:97432 CAPLUS
DOCUMENT NUMBER: 138:133977
TITLE: Process for producing novel dammarane sapogenins and their use as anticancer agents
INVENTOR(S): Huang, Dong; Qi, Dong Feng
PATENT ASSIGNEE(S): Panagin Pharmaceuticals Inc., Can.
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

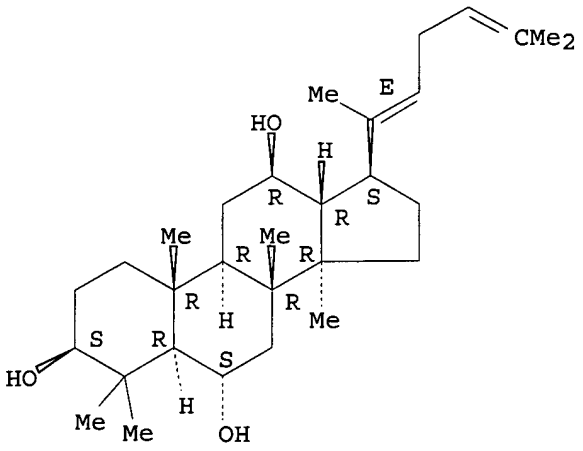
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2003010182 | A1 | 20030206 | WO 2002-CA1173 | 20020724 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-910887 A 20010724
US 2001-982018 A 20011019
OTHER SOURCE(S): MARPAT 138:133977
IT **174688-80-3P**, PAM 110
RL: IMF (Industrial manufacture); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(process for producing dammarane sapogenins from ginseng and their use as anticancer agents)
RN 174688-80-3 CAPLUS
CN Dammara-20(22),24-diene-3,6,12-triol, (3.beta.,6.alpha.,12.beta.,20E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.

09910887




GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The present invention relates to a group of novel dammarane sapogenins, such as I [R1 = H, glc, glc(1.fwdarw.2)glc; R2 = H, OH; R3 = Me, CH2], their use in anticancer applications, and to a process for their prodn. from ginseng. More particularly, this invention pertains to a novel group of dammarane sapogenins, PAM-120 I (R1, R2 = H; R3 = CH2; dashed bond = double bond), PBM-110 II (R1 = H; R2 = OH) and PBM-100 (III) (the dammarane sapogenin structure is specifically clean of any sugar moieties at any position and hydroxyl at C-20), and PAN-20 I [R1 = .beta.-D-glucopyranosyl; R2 = H; R3 = CH2; dashed bond = double bond] and PAN-30 II [R1 = .beta.-D-glucopyranosyl(1.fwdarw.2) .beta.-D-glucopyranosyl; R2 = H] (the dammarane sapogenin structure has sugar moieties but is free of hydroxyl at C-20), obtained by chem. cleavage of dammarane saponins. A novel application of I-III for anti-cancer treatment by using them sep. or together, and/or jointly with other drugs, particularly against multi-drug resistant cancers.

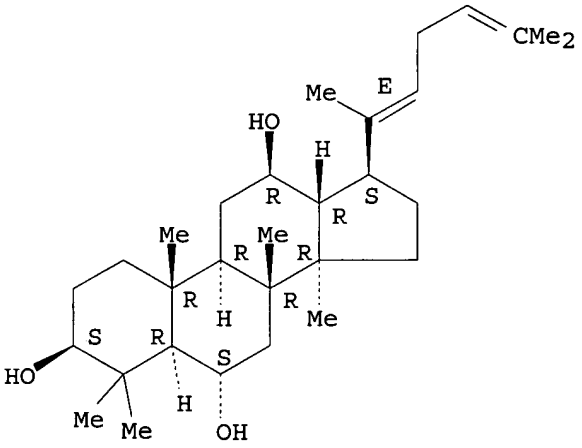
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1996:431012 CAPLUS
DOCUMENT NUMBER: 125:157877
TITLE: Effects of ginseng saponin on modulation of multidrug resistance
AUTHOR(S): Park, Jong-Dae; Kim, Dong-Sun; Kwon, Hyeok-Young; Son, Sang-Kwon; Lee, You-Hui; Baek, Nam-In; Kim, Shin-Il; Rhee, Dong-Kwon
CORPORATE SOURCE: Korea Ginseng & Tobacco Research Institute, Taejon, 305-345, S. Korea
SOURCE: Archives of Pharmacal Research (1996), 19(3), 213-218
CODEN: APHRDQ; ISSN: 0253-6269
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **174688-80-3**, Quasiprotopanaxatriol
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effects of ginseng saponins on modulation of multidrug resistance in human cancer cells cytotoxicity to vincristine)
RN 174688-80-3 CAPLUS
CN Dammara-20(22),24-diene-3,6,12-triol, (3.beta.,6.alpha.,12.beta.,20E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.

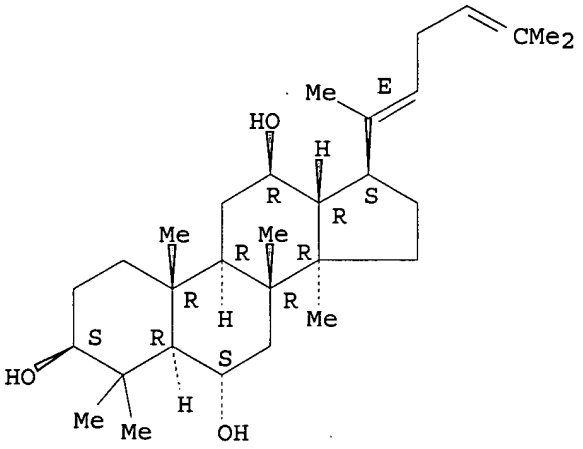



AB Multidrug resistance (MDR) has been a major problem in cancer chemotherapy. To overcome this problem, the authors prepd. minor ginsenosides stereoselectively from ginseng saponins and searched for a ginseng component which is effective for inhibition of MDR. MDR inhibition activity was detd. by measuring cytotoxicity to MDR cells using multidrug resistant human fibrocarcinoma KB V20C, which is resistant to 20 nM vincristine and expresses high level of mdr1 gene. Of several ginseng components, 20(S)-ginsenoside Rg3, a red ginseng saponin, was found to have the most potent inhibitory activity on MDR and it's concn. capable of inhibiting 50% growth was 82 .mu.M.

L18 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:171497 CAPLUS
DOCUMENT NUMBER: 124:226602
TITLE: Ginsenoside Rh4, a genuine dammarane glycoside from Korean red ginseng
AUTHOR(S): Baek, Nam-In; Kim, Dong Seon; Lee, You Hui; Park, Jong Dae; Lee, Chun Bae; Kim, Shin Il
CORPORATE SOURCE: Korea Ginseng & Tobacco Research Inst., Taejeon, 305-345, S. Korea
SOURCE: Planta Medica (1996), 62(1), 86-7
CODEN: PLMEAA; ISSN: 0032-0943
PUBLISHER: Thieme
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **174688-80-3P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)
RN 174688-80-3 CAPLUS
CN Dammara-20(22),24-diene-3,6,12-triol, (3.beta.,6.alpha.,12.beta.,20E)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.




AB A genuine glycoside, named ginsenoside Rh4, was isolated from Korean red ginseng (Panax ginseng C. A. Meyer) through repeated column chromatog., and its chem. structure was established to be 6-O-.beta.-D-glucopyranosyldammar-20(22),24-diene-3.beta.,6.alpha.,12.beta.-triol by spectral and chem. methods. The stereochem. of a double bond at C-20(22) of ginsenoside Rh4 was characterized as (E) from a NOESY expt. in the 1H-NMR of the aglycon. Cyclotoxic activities of ginsenoside Rh4 and its aglycon against cancer cell lines were evaluated by use of the SRB method.

=> s l8
L19 1 L8

=> d l19 ibib hitstr abs

L19 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:97432 CAPLUS
DOCUMENT NUMBER: 138:133977
TITLE: Process for producing novel dammarane sapogenins and their use as anticancer agents
INVENTOR(S): Huang, Dong; Qi, Dong Feng
PATENT ASSIGNEE(S): Panagin Pharmaceuticals Inc., Can.
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2003010182 | A1 | 20030206 | WO 2002-CA1173 | 20020724 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-910887 A 20010724
US 2001-982018 A 20011019

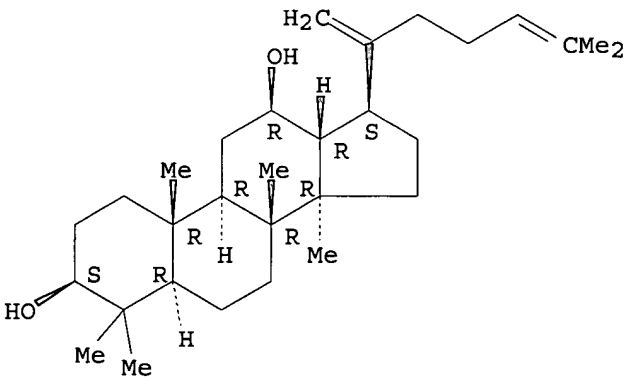
OTHER SOURCE(S): MARPAT 138:133977

IT **494753-66-1P**, PAM 120
RL: IMF (Industrial manufacture); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(process for producing dammarane sapogenins from ginseng and their use as anticancer agents)

RN 494753-66-1 CAPLUS

CN Dammara-20,24-diene-3,12-diol, (3.beta.,12.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.




GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The present invention relates to a group of novel dammarane sapogenins, such as I [R1 = H, glc, glc(1.fwdarw.2)glc; R2 = H, OH; R3 = Me, CH2], their use in anticancer applications, and to a process for their prodn. from ginseng. More particularly, this invention pertains to a novel group of dammarane sapogenins, PAM-120 I (R1, R2 = H; R3 = CH2; dashed bond = double bond), PBM-110 II (R1 = H; R2 = OH) and PBM-100 (III) (the dammarane sapogenin structure is specifically clean of any sugar moieties at any position and hydroxyl at C-20), and PAN-20 I [R1 = .beta.-D-glucopyranosyl; R2 = H; R3 = CH2; dashed bond = double bond] and PAN-30 II [R1 = .beta.-D-glucopyranosyl(1.fwdarw.2) .beta.-D-

glucopyranosyl; R2 = H] (the dammarane sapogenin structure has sugar moieties but is free of hydroxyl at C-20), obtained by chem. cleavage of dammarane saponins. A novel application of I-III for anti-cancer treatment by using them sep. or together, and/or jointly with other drugs, particularly against multi-drug resistant cancers.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s l11
L20 3 L11

=> d l20 1-3 ibib hitstr abs

L20 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:97432 CAPLUS
DOCUMENT NUMBER: 138:133977
TITLE: Process for producing novel dammarane sapogenins and their use as anticancer agents
INVENTOR(S): Huang, Dong; Qi, Dong Feng
PATENT ASSIGNEE(S): Panagin Pharmaceuticals Inc., Can.
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2003010182 | A1 | 20030206 | WO 2002-CA1173 | 20020724 |

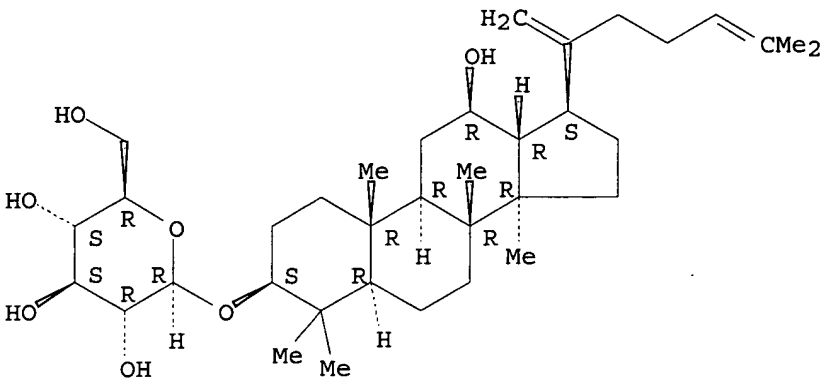
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-910887 A 20010724
US 2001-982018 A 20011019
OTHER SOURCE(S): MARPAT 138:133977
IT **364779-14-6P**, PAN 20
RL: IMF (Industrial manufacture); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(process for producing dammarane sapogenins from ginseng and their use as anticancer agents)
RN 364779-14-6 CAPLUS
CN .beta.-D-Glucopyranoside, (3.beta.,12.beta.)-12-hydroxydammara-20,24-dien-3-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

09910887



GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

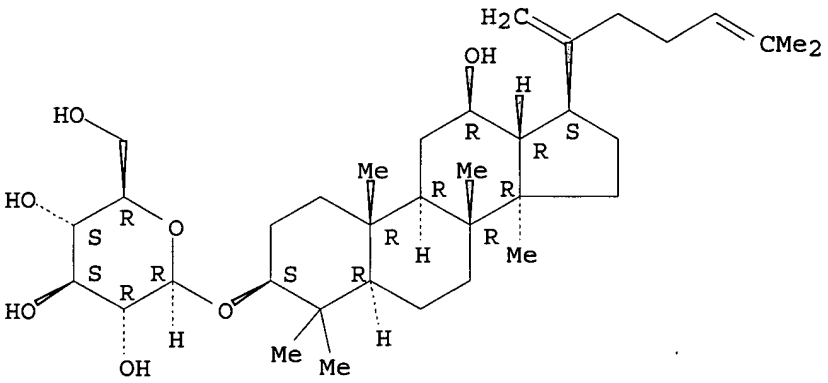
AB The present invention relates to a group of novel dammarane sapogenins, such as I [R1 = H, glc, glc(1.fwdarw.2)glc; R2 = H, OH; R3 = Me, CH2], their use in anticancer applications, and to a process for their prodn. from ginseng. More particularly, this invention pertains to a novel group of dammarane sapogenins, PAM-120 I (R1, R2 = H; R3 = CH2; dashed bond = double bond), PBM-110 II (R1 = H; R2 = OH) and PBM-100 (III) (the dammarane sapogenin structure is specifically clean of any sugar moieties at any position and hydroxyl at C-20), and PAN-20 I [R1 = .beta.-D-glucopyranosyl; R2 = H; R3 = CH2; dashed bond = double bond] and PAN-30 II [R1 = .beta.-D-glucopyranosyl(1.fwdarw.2) .beta.-D-glucopyranosyl; R2 = H] (the dammarane sapogenin structure has sugar moieties but is free of hydroxyl at C-20), obtained by chem. cleavage of dammarane saponins. A novel application of I-III for anti-cancer treatment by using them sep. or together, and/or jointly with other drugs, particularly against multi-drug resistant cancers.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:689351 CAPLUS
DOCUMENT NUMBER: 138:150225
TITLE: Three new dammarane glycosides from heat processed ginseng
AUTHOR(S): Park, Il Ho; Kim, Na Young; Han, Sang Beom; Kim, Jong Moon; Kwon, Sung Won; Kim, Hyun Jung; Park, Man Ki; Park, Jeong Hill
CORPORATE SOURCE: Research Institute of Pharmaceutical Sciences, College of Pharmacy, Seoul National University, Seoul, 151-742, S. Korea
SOURCE: Archives of Pharmacal Research (2002), 25(4), 428-432
CODEN: APHRDQ; ISSN: 0253-6269
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **364779-14-6P**, 3.beta.,12.beta.-Dihydroxydammar-20(21),24-diene-3-O-

.beta.-D-glucopyranoside
RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(new dammarane glycosides from heat-processed ginseng)
RN 364779-14-6 CAPLUS
CN .beta.-D-Glucopyranoside, (3.beta.,12.beta.)-12-hydroxydammara-20,24-dien-3-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

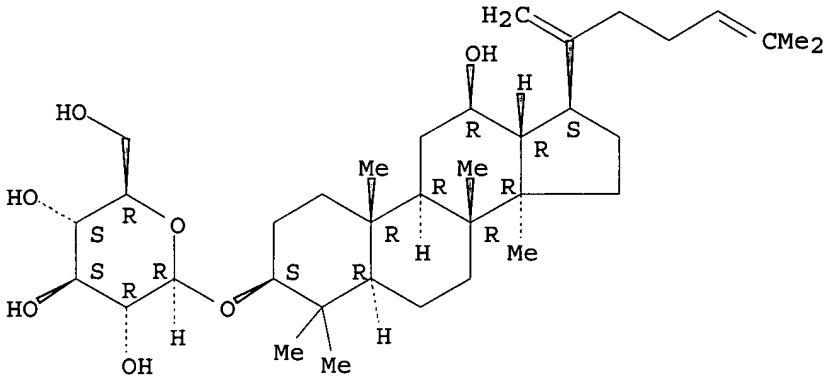



AB Three new dammarane glycosides were isolated from the processed ginseng. Their structure were detd. to be 3.beta.,12.beta.-dihydroxydammar-20(21),24-diene-3-O-.beta.-D-glucopyranosyl(1.fwdarw.2)-.beta.-D-glucopyranoside; 3.beta.,12.beta.-dihydroxydammar-20(21),24-diene-3-O-.beta.-D-glucopyranoside, and 3.beta.,6.alpha.,12.beta.-trihydroxydammar-20(21),24-diene-6-O-.beta.-D-glucopyranoside based on spectroscopic evidences. The compds. were named as ginsenoside Rk1, Rk2, and Rk3, resp.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:448497 CAPLUS
DOCUMENT NUMBER: 135:294045
TITLE: Liquid chromatographic determination of less polar ginsenosides in processed ginseng
AUTHOR(S): Kwon, S. W.; Han, S. B.; Park, I. H.; Kim, J. M.; Park, M. K.; Park, J. H.
CORPORATE SOURCE: College of Pharmacy, Research Institute of Pharmaceutical Science, Seoul National University, Seoul, 151-742, S. Korea
SOURCE: Journal of Chromatography, A (2001), 921(2), 335-339
CODEN: JCRAEY; ISSN: 0021-9673
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **364779-14-6**
RL: ANT (Analyte); ANST (Analytical study)
(liq. chromatog. detn. of less polar ginsenosides in processed ginseng)
RN 364779-14-6 CAPLUS
CN .beta.-D-Glucopyranoside, (3.beta.,12.beta.)-12-hydroxydammara-20,24-dien-3-yl (9CI) (CA INDEX NAME)

09910887

Absolute stereochemistry. Rotation (+).



AB Reversed-phase LC with an evaporative light scattering detector (ELSD) is used for the detn. of less polar ginsenosides in processed ginseng. These ginsenosides include ginsenosides F4, Rg3, Rg5, Rg6, Rk1, Rk3, Rs3, Rs4, and Rs5. The method used a C18-bonded silica column with a CH3CN/H2O/CH3COOH gradient elution. (20R) and (20S) epimers and geometric isomers at the C-20 position of ginsenosides, which are not generally sepd. by amino columns, were now clearly sepd.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L21 6 L12

=> d l21 1-6 ibib hitstr abs

L21 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:97432 CAPLUS
DOCUMENT NUMBER: 138:133977
TITLE: Process for producing novel dammarane sapogenins and their use as anticancer agents
INVENTOR(S): Huang, Dong; Qi, Dong Feng
PATENT ASSIGNEE(S): Panagin Pharmaceuticals Inc., Can.
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2003010182 | A1 | 20030206 | WO 2002-CA1173 | 20020724 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-910887 A 20010724
US 2001-982018 A 20011019

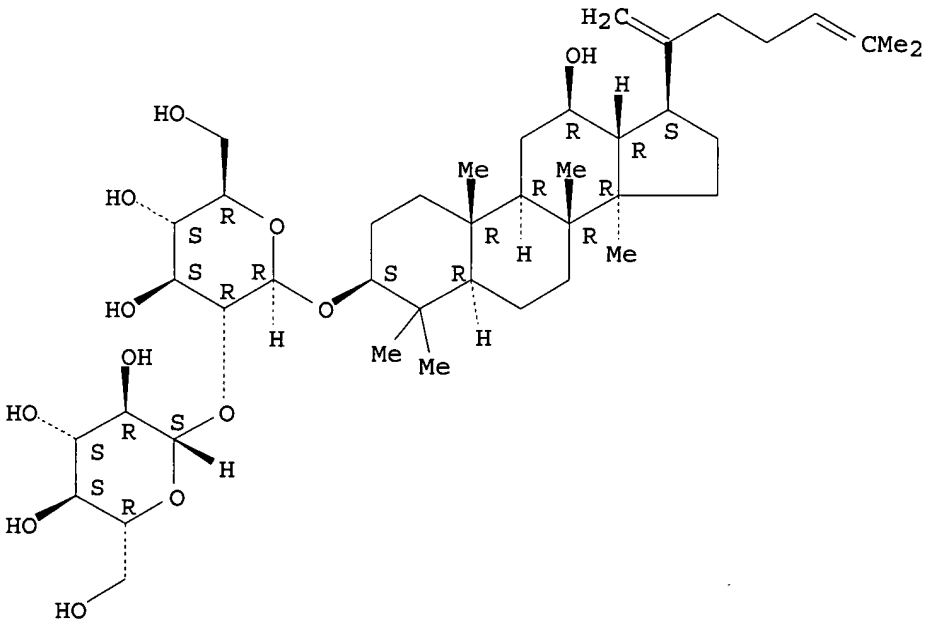
OTHER SOURCE(S): MARPAT 138:133977

IT **494753-69-4P**, PAN 30
RL: IMF (Industrial manufacture); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(process for producing dammarane sapogenins from ginseng and their use as anticancer agents)

RN 494753-69-4 CAPLUS

CN .beta.-D-Glucopyranoside, (3.beta.,12.beta.)-12-hydroxydammara-20,24-dien-3-yl 2-O-.beta.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).




GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

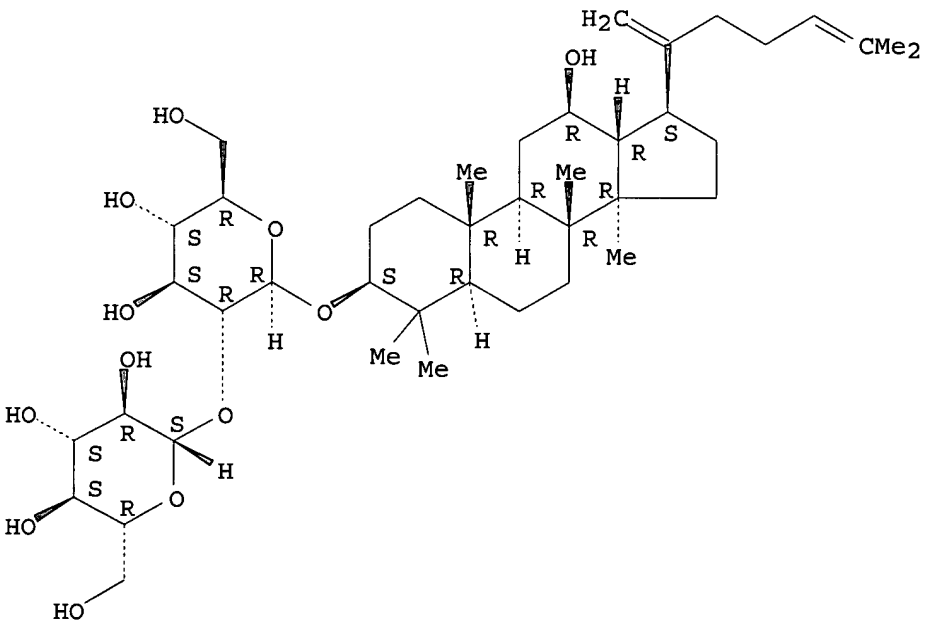
AB The present invention relates to a group of novel dammarane sapogenins, such as I [R1 = H, glc, glc(1.fwdarw.2)glc; R2 = H, OH; R3 = Me, CH2], their use in anticancer applications, and to a process for their prodn. from ginseng. More particularly, this invention pertains to a novel group of dammarane sapogenins, PAM-120 I (R1, R2 = H; R3 = CH2; dashed bond = double bond), PBM-110 II (R1 = H; R2 = OH) and PBM-100 (III) (the dammarane sapogenin structure is specifically clean of any sugar moieties

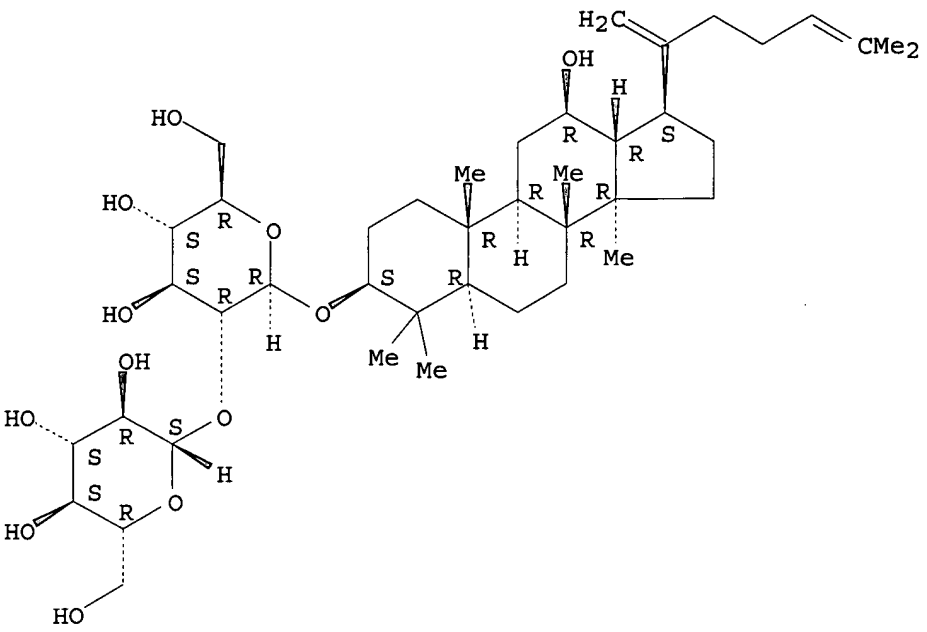
at any position and hydroxyl at C-20), and PAN-20 I [R1 = .beta.-D-glucopyranosyl; R2 = H; R3 = CH2; dashed bond = double bond] and PAN-30 II [R1 = .beta.-D-glucopyranosyl(1.fwdarw.2) .beta.-D-glucopyranosyl; R2 = H] (the dammarane sapogenin structure has sugar moieties but is free of hydroxyl at C-20), obtained by chem. cleavage of dammarane saponins. A novel application of I-III for anti-cancer treatment by using them sep. or together, and/or jointly with other drugs, particularly against multi-drug resistant cancers.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:689351 CAPLUS
DOCUMENT NUMBER: 138:150225
TITLE: Three new dammarane glycosides from heat processed ginseng
AUTHOR(S): Park, Il Ho; Kim, Na Young; Han, Sang Beom; Kim, Jong Moon; Kwon, Sung Won; Kim, Hyun Jung; Park, Man Ki; Park, Jeong Hill
CORPORATE SOURCE: Research Institute of Pharmaceutical Sciences, College of Pharmacy, Seoul National University, Seoul, 151-742, S. Korea
SOURCE: Archives of Pharmacal Research (2002), 25(4), 428-432
CODEN: APHRDQ; ISSN: 0253-6269
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **494753-69-4P**, Ginsenoside Rk1
RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(new dammarane glycosides from heat-processed ginseng)
RN 494753-69-4 CAPLUS
CN .beta.-D-Glucopyranoside, (3.beta.,12.beta.)-12-hydroxydammara-20,24-dien-3-yl 2-O-.beta.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).





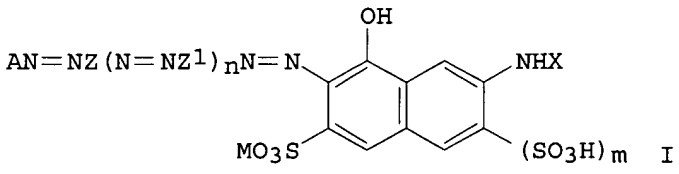
AB Three new dammarane glycosides were isolated from the processed ginseng. Their structure were detd. to be 3.beta.,12.beta.-dihydroxydammar-20(21),24-diene-3-O-.beta.-D-glucopyranosyl(1.fwdarw.2)-.beta.-D-glucopyranoside; 3.beta.,12.beta.-dihydroxydammar-20(21),24-diene-3-O-.beta.-D-glucopyranoside, and 3.beta.,6.alpha.,12.beta.-trihydroxydammar-20(21),24-diene-6-O-.beta.-D-glucopyranoside based on spectroscopic evidences. The compds. were named as ginsenoside Rk1, Rk2, and Rk3, resp.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:237003 CAPLUS
DOCUMENT NUMBER: 112:237003
TITLE: Heat- or pressure-sensitive printer ribbons
INVENTOR(S): Takimoto, Hiroshi; Sano, Hideo
PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 01055284 | A2 | 19890302 | JP 1987-212201 | 19870826 |

PRIORITY APPLN. INFO.: JP 1987-212201 19870826
OTHER SOURCE(S): MARPAT 112:237003
IT **114752-85-1**, Diacarna PAN 30
RL: USES (Uses)
(printer ribbon inks contg., heat- and pressure-sensitive)
RN 114752-85-1 CAPLUS
CN Diacarna PAN 30 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
GI

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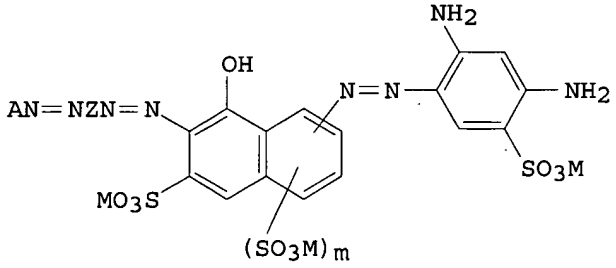


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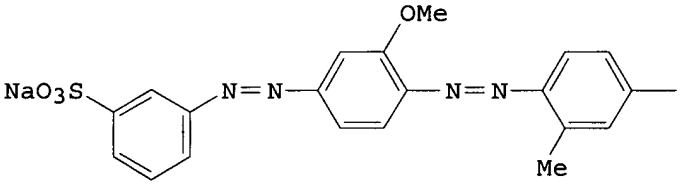



III

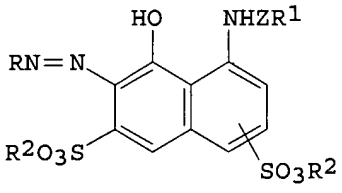
AB The title ribbons, providing high-d. images with low printing pin wear, have an ink layer contg. .gtoreq.1 azo dye chosen from I and II (A, Z, Z1 = (un)substituted benzenediyl or naphthalenediyl; X = H, lower alkyl, Ph, SO3M-substituted Ph; M = H, alkali metal, NH4, amine residue; m, n = 0-1] and a wax (softening or m. 40-150.degree.) and/or thermoplastic resin. A hot-melt ink comprised 97% Daiamid Y fatty amide and 3% I [AN:NZ(N:NZ1)n = III; m = 0; M = Na; X = m-C6H4SO3Na].

L21 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1989:499146 CAPLUS
DOCUMENT NUMBER: 111:99146
TITLE: Transfer recording sheets with an ink layer containing azo type dye and wax and/or thermoplastic resin
INVENTOR(S): Takimoto, Hiroshi; Sano, Hideo
PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 01055285 | A2 | 19890302 | JP 1987-212202 | 19870826 |

PRIORITY APPLN. INFO.: JP 1987-212202 19870826
IT **114752-85-1**, Diacarna PAN 30
RL: USES (Uses)
(transfer recording sheet contg., for images with good transparency and lightfastness)
RN 114752-85-1 CAPLUS
CN Diacarna PAN 30 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
GI



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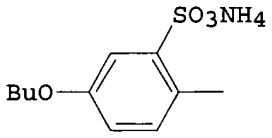


II

AB Transfer recording sheets are prepd. by forming, on a substrate, a color material layer from an ink compn. contg. an azo-type dye of the formula I [R = benzene or naphthalene ring which has SO3R2 on the ortho position to the azo group and may be substituted with other groups; R1 = alkyl, Ph which may be substituted; R2 = H, alkali metal, amine, NH4; Z = CO, CO2, SO2) and a wax having a m.p. or softening point of 40-150.degree. and/or a thermoplastic resin. The sheets, which are adaptable to heat- and pressure-sensitive transfer recording, provide transparent and high color quality images with good lightfastness. Thus, a polyester film was coated with a mixt. of Diamid Y (fatty acid amide) and I (R = II; R1 = Me; R2 = NH4; Z = CO) (97:3 wt. ratio) to give a thermal-transfer film which gave high-quality images on an electrophotog. paper.

L21 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1989:499145 CAPLUS
DOCUMENT NUMBER: 111:99145
TITLE: Transfer recording sheets with ink layer containing azo-type dye and wax and/or thermoplastic resin
INVENTOR(S): Takimoto, Hiroshi; Sano, Hideo
PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

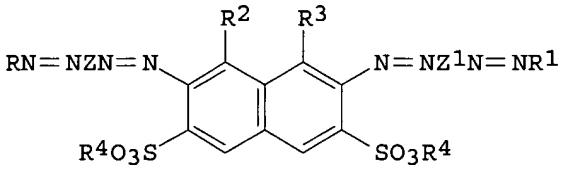
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 01055283 | A2 | 19890302 | JP 1987-212199 | 19870826 |

PRIORITY APPLN. INFO.: JP 1987-212199 19870826
IT **114752-85-1**, Diacarna PAN 30
RL: USES (Uses)
(transfer recording sheet contg., for images with good transparency and lightfastness)
RN 114752-85-1 CAPLUS

09910887

CN Diacarna PAN 30 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
GI

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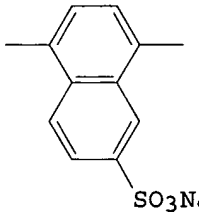


II

AB Transfer recording sheets are prepd. by forming, on a substrate, a color material layer made of an ink compn. contg. an azo-type dye of the formula I [R, R1 = naphthalene ring substituted with OH, NH2, acrylamino, or SO3R4, benzene ring substituted with alkyl, alkoxy, OH, NH2, acylamino, or SO3R4; R2, R3 = OH, NH2; R4 = H, alkali metal, amine, NH2; Z, Z1 = naphthalene ring substituted with SO3R4, benzene ring which may be substituted with alkyl, alkoxy, or acylamino) and a wax having a m.p. or softening point of 40-150.degree. and/or a thermoplastic resin. The sheets, which are adaptable to heat- and pressure-sensitive transfer recording, provide transparent and high color quality images with good lightfastness. Thus, a polyester film was coated with a mixt. of Diamid Y (fatty acid amide) and I (R = R1 = p-C6H4NHCOMe; R2 = OH; R3 = NH2; R4 = Na; Z = Z1 = II) (97:3 wt. ratio) to give a thermal-transfer film which gave high quality images on an electrophotog. paper.

L21 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1988:177372 CAPLUS
DOCUMENT NUMBER: 108:177372
TITLE: Maleic anhydride-olefin copolymer-coated pigment and its use in electrophotographic liquid developers
INVENTOR(S): Tsubushi, Kazuo; Kuramoto, Shinichi; Nagai, Kayoko
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 62235956 | A2 | 19871016 | JP 1986-78813 | 19860405 |
| JP 07005850 | B4 | 19950125 | | |

PRIORITY APPLN. INFO.: JP 1986-78813 19860405
IT **114752-85-1**
RL: USES (Uses)
(electrophotog. toner contg. pigment coated with)
RN 114752-85-1 CAPLUS
CN Diacarna PAN 30 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

09910887

AB A maleic anhydride-olefin copolymer-coated pigment particles and an electrophotog. liq. developer compn. contg. the pigment are claimed wherein the compn. comprises a resin-based toner contg. the above coated pigment dispersed in a low-permittivity insulating carrier liq.

=> logoff
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:H

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 53.37 | 199.80 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | -8.46 | -10.41 |

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 14:22:46 ON 15 MAR 2003